

Department of Defense INSTRUCTION

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ASD(I&L)

SUBJECT: Productivity Enhancement, Measurement, and Evaluation - Operating Guidelines and Reporting Instructions

References: (a) <u>DoD Directive 5010.31</u>, "Productivity Enhancement, Measurement and Evaluation - Policies and Responsibilities," August 4, 1975

- (b) DoD Directive 5010.8, "Department of Defense Value Engineering," February 2, 1972
- (c) DoD Directive 7000.1, "Resource Management Systems of the Department of Defense," August 22, 1966
- (d) <u>DoD Instruction 7041.3</u>, "Economic Analysis and Program Evaluation for Resource Management," October 18, 1972
- (e) DoD Manual 5010.15.1-M, "Standardization of Work Measurement," September 1973
- (f) OMB Memorandum, "Joint Project for Measuring and Enhancing Federal Productivity," July 9, 1973

1. INTRODUCTION AND PURPOSE

Organizations must be both (a) effective -- accomplish the right things, in the right quantities, at the right times and (b) efficient -- accomplish the right things with the lowest possible expenditure of resources. The efficiency with which organizations utilize all types of fund resources (operating and investment) to accomplish their mission represents total resource productivity. The efficiency with which organizations utilize labor resources to accomplish their mission represents labor productivity. This Instruction sets forth general operating guidelines and reporting instructions on the enhancement, measurement, and evaluation of productivity in the Department of Defense (hereinafter referred to as the "DoD Productivity Program").

2. APPLICABILITY

The provisions of this Instruction apply to the Office of the Secretary of Defense, the Military Departments, the Organization of the Joint Chiefs of Staff, and all Defense Agencies (here-in-after referred to collectively as "DoD Components").

3. OBJECTIVE AND SCOPE

- 3.1. The primary objective of the DoD Productivity Program is to achieve optimum productivity growth (increase the amount of goods produced or services rendered in relation to the amount of resources expended) throughout the Department of Defense. Productivity increases are vitally needed to help offset increased personnel costs, free funds for other priority requirements, and reduce the unit cost of necessary goods and services.
- 3.2. There are many ways and different techniques which can be employed to increase Productivity.
 - 3.2.1. Four basic ways are:
- 3.2.1.1. Methods and Standards Improvement -- streamline work procedures and processes; refine labor performance standards;
- 3.2.1.2. Capital Investments -- provide more efficient tools, equipment and facilities;
 - 3.2.1.3. Training -- increase employee knowledge and skill; and
 - 3.2.1.4. Motivation -- increase employee job satisfaction.
 - 3.2.2. Techniques and disciplines include:
 - 3.2.2.1. Value Engineering (DoD Directive 5010.8, reference (b));
 - 3.2.2.2. Industrial Engineering;
 - 3.2.2.3. Management Engineering; and
 - 3.2.2.4. Economic Analysis and Program Evaluation (DoD Instruction

7041.3, reference (d)).

The DoD Productivity Program encourages prudent use of all available ways, techniques, and disciplines to increase productivity.

4. GOALS

The Head of each DoD Component shall:

- 4.1. Establish annual productivity improvement goals (preferably by type of support function) for his Department/Agency which are consistent with Planning and Programming Guidance issued by the Office of the Secretary of Defense.
- 4.2. Appropriately subdivide annual productivity improvement goals by major command and operating agency prior to the beginning of each fiscal year.
- 4.3. Advise the Secretary of Defense, by October 31 of each year, of the Department/Agency productivity improvement goals and the subdivisions thereof.

5. GENERAL GUIDELINES

Each DoD Component shall implement a Department/Agency-wide Productivity Program (required by DoD Directive 5010.31 (reference (a)) which contains the following minimum provisions:

- 5.1. Priority emphasis on productivity enhancement at all organizational echelons.
- 5.2. Maximum use of existing resource management systems established under DoD Directive 7000.1 (reference (c)) in productivity measurement and evaluation.
- 5.3. Systematic methods improvement reviews of major functions and appropriate use of labor performance standards in all functions where the application of such standards will insure more efficient utilization of manpower and fund resources (see enclosure E1.).
- 5.4. Effective capital investment planning including the timely identification, processing, and funding of fast-payback capital investment opportunities (see enclosure E2.).
 - 5.5. Development and appropriate use of productivity evaluation indicators which

represent true measures of the primary workload or mission for each function identified in section E3.6. of enclosure E3. and for any other area that the implementing Component desires to include in its Productivity Program.

- 5.6. Accumulation of productivity data (units of goods produced or services rendered and resources expended) by major command and operating agency for each applicable function.
- 5.7. Utilization of productivity and performance data in the development of requirements and allocations of manpower and fund resources.
- 5.8. Optimum effective use of standard time data DoD Manual 5010.15.1-M (reference (e)), in the development and updating of labor performance standards.
- 5.9. Adequate staffing and training of personnel to sustain a viable Productivity Program.
 - 5.10. Periodic field reviews to assess program effectiveness.
 - 5.11. Productivity measurement and evaluation (see enclosure E3.).

6. REPORTING

Reporting requirements and due dates are contained in enclosure E4. Interagency Report Control Number 0002-GSA-AN is assigned to this information requirement. Classified data will not be reported under this requirement.

7. EFFECTIVE DATE

This Instruction is effective *immediately*.

Acting Assistant Secretary of Defense (Installations and Logistics)

Enclosures - 4

- 1. Methods and Standards
- 2. Fast-Payback Capital Investment Opportunities
- 3. Productivity Measurement and Evaluation
- 4. Productivity Reporting

E1. ENCLOSURE 1

METHODS AND STANDARDS

E1.1. INTRODUCTION

- E1.1.1. Most methods (procedures and processes) at each activity and at each level of responsibility are likely candidates for improvement. A method improvement can range in scope from a reduction in the distance that workers must reach to accomplish a task to a more efficient total system process resulting from complete rearrangement of a plant or office layout to outright elimination of unnecessary functions.
- E1.1.2. Methods analysis -- a systematic, analytic review of an operation, process, or system for the express purpose of reducing resources (manpower or other) required to accomplish a given workload -- is one way of improving methods and increasing productivity. The techniques utilized in methods analysis can cover the complete spectrum of the industrial/management engineering discipline, such as flow-charting, organization analysis, human engineering, operations research, and statistical/mathematical modeling. Methods analysis is an integral step in the process of establishing and revising labor performance standards.
- E1.1.3. All methods should be reviewed periodically. In addition to providing more efficient procedures and processes, methods reviews should include other possible areas for improvement, such as reductions in materials and utilities consumed and reductions in manpower requirements through automation and more efficient tools, equipment and facilities.
- E1.1.4. Development and use of appropriate types and levels of labor performance standards can contribute significantly to productivity improvements. It is important that standards and control indicators be established consistent with management needs at the various levels of responsibility. Detailed labor performance standards (covering individual tasks, jobs, and operations) should be developed for use at work center and field operating levels in workload planning and control and balancing of resources and necessary workloads. These standards can also be used to determine the labor efficiency of individuals or groups of individuals on different segments of work. Summary or higher level standards (covering broader segments of work) should be developed for use with other management data at installation, command, and departmental headquarters in the planning, controlling, and allocating

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of manpower and fund resources.

- E1.1.5. One of the most important aspects of any methods and standards program is the determination of the proper type (quality) of labor standard to be established for each situation. The type of standard established should normally be commensurate with the projected workload that will be covered by the standard... the larger the workload (taking into account both the estimated total hours and estimated number of units to be produced) the higher the quality of standard needed. The quality of a standard is determined by the technique used to develop the standard and the statistical reliability of the time data elements.
- E1.1.6. Within the Department of Defense, labor performance standards will be classified into two broad categories -- engineered and non-engineered. A standard will be considered an engineered standard if (1) developed by the application of standard time data, predetermined time systems, time study, rated work sampling, or a combination of these techniques, (2) at least 80 percent of the total time included in the standard is based on data, elements, or lower level standards which have, at a minimum, an accuracy of plus or minus 25 percent at a 90 percent confidence level, and (3) backup data for the standard contains a method analysis; description of the job, process, or procedures; documentation of the technique used in the development and the statistical reliability. A standard will be considered non-engineered if it does not meet the above criteria. In some instances, development of non-engineered standards may require the same in-depth analysis of the job, process, or procedure as required for the development of an engineered standard, but normally the development technique (usually based upon statistical/historical data, technical estimates, or manhour allowances) is less time-consuming, and the degree of statistical reliability does not have to be determined and documented.

E1.2. GUIDELINES

Each DoD Component shall ensure its procedures provide for periodic and systematic reviews of all major jobs, functions, and operations, and the establishment and use of appropriate types and levels of labor performance standards throughout its Department/Agency. As a minimum, such procedures shall provide for the following:

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E1.2.1. Appropriate methods reviews, including determination of workload essentiality and analysis of processes and plant layouts, in conjunction with the establishment of labor performance standards.

- E1.2.2. Review and updating of labor performance standards as necessary to maintain their validity, with priority of review afforded to those standards covering high volume workloads or workloads which account for the majority of the manhours expended.
- E1.2.3. Periodic reviews of methods (procedures and processes) of major jobs, operations, and functions, which are not covered by labor performance standards.
- E1.2.4. Controls to ensure that recommended revisions in methods (whether internally or externally originated) are analyzed promptly and implemented, as appropriate, on a timely basis.
- E1.2.5. A mechanism for exchanging information on adopted ideas and improvements between commands and between installations within commands. The idea interchange procedures should provide for a concise description of both the old and new procedure, the cost associated with each method, and a point of contact who can satisfy detailed inquiries on each improvement idea which is disseminated.
- E1.2.6. Evaluations of actual labor performance against preestablished standards for work covered by detailed labor performance standards. Normally, this evaluation can best be accomplished through the development of earned hours and the relating of actual hours expended to earned hours. Earned hours can be calculated through the multiplication of unit labor performance standards by the number of work units completed.
- E1.2.7. Provisions for optimum efficient utilization of DoD standard time data provided by DoD Manual 5010.15.1-M (reference (e)).
- E1.2.8. Appropriate training for personnel engaged in methods and standards work.

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E2. ENCLOSURE 2

FAST-PAYBACK CAPITAL INVESTMENT OPPORTUNITIES

E2.1. INTRODUCTION

- E2.1.1. Timely identification and funding of fast-payback capital investment opportunities are a key requirement for successful productivity improvement. In fact, economists estimate that new and improved capital goods contribute between 40 and 60 percent of the productivity increases in the private sector.
- E2.1.2. An effective productivity enhancing capital investment effort requires aggressive actions to seek out opportunities and the capability to provide prompt financing for such opportunities. It also requires that potential projects be supported by adequately documented economic analyses and followed up to ensure prompt project completion and realization of planned benefits.

E2.2. GUIDELINES

Each DOD Component shall ensure that its procedures provide for an effective productivity-enhancing capital investment effort at all organizational elements, including the following as a minimum:

- E2.2.1. A systematic approach which encourages and assures the prompt identification of productivity-enhancing capital investment opportunities. All personnel should be encouraged to maintain an awareness of the most efficient tools, equipment, and processes in their respective areas of responsibility and to surface all recommendations which would result in more efficient accomplishment of tasks, jobs, and functions.
- E2.2.2. An effective process for evaluating capital investment proposals. This should include a simple, concise method for preparing justifications and processing proposals for review and approval. Criteria covering the preparation of economic analyses is contained in DoD Instruction 7041.3 (reference (d)). Approval decision shall be delegated to the lowest possible level to ensure prompt reaction to proposals.
- E2.2.3. To the extent possible, prompt financing of fast-payback capital investment opportunities (opportunities for which the cost can be recovered through savings in 2 years or less). The most efficient method of financing small dollar value

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investments is to provide operating managers with funds that they can use to finance proposals within certain dollar limitations without submitting such proposals to higher headquarters for review, approval, and funding.

- E2.2.4. Long-range capital investment planning to provide for changing technology and to ensure that financing of short-term investment proposals are consistent with long-term objectives and plans.
- E2.2.5. Procedures for identifying in annual budget submissions the total funding required to finance all fast-payback capital investment opportunities which are supported by valid economic analyses.
- E2.2.6. Systematic follow-up of approved proposals to ensure prompt implementation.
- E2.2.7. Adequate controls to ensure that savings are identified and used to finance approved requirements.

E3. ENCLOSURE 3

PRODUCTIVITY MEASUREMENT AND EVALUATION

E3.1. INTRODUCTION

- E3.1.1. By memorandum dated July 9, 1973 (reference (f)), the Office of Management and Budget directed (1) the establishment of a permanent system for measuring and evaluating productivity in the Federal sector, and (2) the preparation of an annual Federal Productivity Report. Under the permanent system:
- E3.1.1.1. Each Executive Department and Agency is required to provide data which can be used in the compilation of productivity indices for the Federal sector and in the development of the annual Federal Productivity Report.
- E3.1.1.2. The Bureau of Labor Statistics (BLS) is responsible for constructing productivity indices for the Federal sector.
- E3.1.1.3. The Joint Financial Management Improvement Program (JFMIP) productivity task force is responsible for analyzing productivity data of Government Departments and Agencies and preparing an annual Federal Productivity Report.
- E3.1.2. The Deputy Secretary of Defense announced the establishment of a permanent DoD Productivity Program in August 1973 and assigned overall responsibility for implementation and management of the program to the Assistant Secretary of Defense (Installations and Logistics), now implemented by DoD Directive 5010.31 (reference (a)).
- E3.1.3. The guidelines contained in this enclosure cover the productivity measurement and evaluation aspects of the total program effort. Guidelines on certain enhancement aspects of the total effort are contained in the preceding enclosures.

E3.2. PRODUCTIVITY PRINCIPALS

- E3.2.1. In accordance with DoD Directive 5010. 31 (reference (a)), the ASD(I&L) is responsible for designating a DoD Productivity Principal responsible for:
- E3.2.1.1. Providing overall technical assistance and coordinating productivity efforts on a DoD-wide basis;

- E3.2.1.2. Submitting DoD productivity data to BLS and JFMIP;
- E3.2.1.3. Coordinating within DoD productivity requirements initiated by other Federal Agencies.
- E3.2.2. Each DoD Component Head is also responsible for designating a productivity principal for his Department/Agency responsible for:
 - E3.2.2.1. Coordinating productivity efforts within his Component;
- E3.2.2.2. Representing his Component in dealings with the DoD Productivity Principal;
 - E3.2.2.3. Compiling productivity reports for submission to the OASD(I&L).

E3.3. PRODUCTIVITY INDEX

- E3.3.1. The productivity of an organization may be broadly defined as the efficiency with which its resources are utilized to produce final outputs. The relationship between the volume of goods produced or services rendered and the quantity of resources consumed can be expressed in terms of a productivity index.
- E3.3.2. Development of productivity indices permits a comparison of an output-input relationship (productivity) of a current period with a previous period of time. A labor-productivity index is the type of productivity index most frequently developed, largely because labor is almost universally required in accomplishing all types of work.
- E3.3.3. A labor-productivity index normally represents an overall measure which reveals, but does not separately identify, the results of all actions affecting labor productivity, such as:
 - E3.3.3.1. Investments in labor-saving equipment;
- E3.3.3.2. Changes in organizations, systems, work processes, and employee skills;
 - E3.3.3.3. Individual motivation and effort; and
 - E3.3.3.4. Changes in quality of the goods produced or services ordered.

E3.4. MAJOR USES

- E3.4.1. Productivity measurement and evaluations provide information which is useful at all levels of Government. The Federal productivity-measurement system provides officials of the Government, Members of Congress, and the general public with information on relative trends of efficiency of Government operations.
- E3.4.2. Effective productivity measurement and evaluation by major program or functional area disclose trends on a consistent basis and enable managers to take steps to influence or change undesirable trends. Such trends can also be used to provide managers with an assessment of the benefits or lack of benefits resulting from past actions such as investments in labor-saving equipment, changes in organizations and systems, and changes in number and skill levels of the workforce. The same benefits are provided supervisors at installation level when productivity measurement and evaluation are applied in more detail to functions and jobs.
- E3.4.3. Productivity trend data is becoming a more important element of budgeting, manpower planning, and operational management at all organizational levels in the Federal Government. For example, Components which do not show productivity improvements or cannot support projections of productivity changes shown in their budgetary estimates may find that both OMB and OSD will make alternative projections based on other factors, such as new investment in plant and equipment or changes in workload.
- E3.4.4. The data submitted to the OASD(I&L), in accordance with enclosure E4., will be used by the Bureau of Labor Statistics (BLS) in the development of productivity indices for the Federal sector. The data will also be used internally within DoD to construct productivity indices for major functions and to determine the extent of productivity coverage in the major commands and operating agencies of DoD Components.

E3.5. PROGRAM STRUCTURES

E3.5.1. As a minimum, the productivity program of each DoD Component will provide for the measurement and evaluation of productivity in each function set forth in section E3.6. This will require the establishment and use of summary level indicators which represent true measures of the prime mission of each functional area and the accumulation of output and input data for each indicator. Normally, a

separate measurement indicator should be established for each major product produced or service rendered within the functional area. New indicators should be established whenever a significant change occurs in the types of products produced or services rendered. Some suggested indicators are set forth in section E3.6. of this enclosure. Use of these indicators is not mandatory; however, each DoD Component must ensure that consistent indicators are used within its respective Department/Agency to measure and evaluate the productivity of each function.

- E3.5.2. Data needed to accomplish valid and useful productivity measurement and evaluation in each of the prescribed functional areas should be available in existing manpower and financial management information systems and records or can be made available through modification of such systems. Manpower resources (both military and civilian) expended in each area should be quantified in terms of manyears and accumulated for each indicator or allocated to each indicator on a consistent basis from year to year. Installation, command and Department/Agency headquarters manpower should be allocated to the functional areas to the extent practical.
- E3.5.3. The productivity program of each DoD Component will also provide for productivity measurement, evaluation and reporting on Government-owned-Contractor-operated (GOCO) production facilities.

E3.6. FUNCTIONS

As a minimum, productivity coverage will be provided on a Department/Agency-wide basis for each of the following functions:

<u>No</u> . A.1	<u>Title/Scope</u> <u>Medical - Hospitals</u> . This area covers personnel performing all types of medical and dental procedures and services in hospitals and medical centers.	Suggested Indicators Health Care Composite Work Unit Adjusted Admission Equivalent
A.2	Medical - Clinics. This area covers personnel performing all types of medical and dental procedures and services in clinics.	Health Care Composite Work Unit Adjusted Admission Equivalent
B.1	Base Communications Activities. This area covers personnel engaged in base level communication functions and operations, such as operation of the base communications center.	Number narrative messages sent and received Number data card messages sent and received Number magnetic tape reels sent and received Number service messages sent and received
B.2	<u>Defense Communications System Activities</u> . This area covers personnel involved in various aspects of operation and maintenance of the Defense Communications System, including such areas as centralized leased communications and operation and maintenance of AUTOVON and AUTODIN automatic switching centers (ASCs)	Number communication service authorizations processed Number messages processed Number major equipments maintained
C.1	Base Accounting and Finance Activities. This area covers personnel engaged in base level accounting and finance functions, such as pay administration, allotment administration and commercial accounts.	Number of Pay Accounts Administered Number of Checks Issued Number of Allotments Administered Number of Commercial Accounts Paid

<u>No</u> .	Title/Scope	Suggested Indicators
C.2	Central Accounting and Finance Activities. This area covers personnel engaged in accounting and finance activities at central locations, such the Air Force Accounting and Finance Center.	Number of Pay Accounts Administered Number of Checks Issued Number of Allotments Administered Number of Commercial Accounts Paid
C.3	Internal Auditing Activities. This Audits/Surveys area covers personnel engaged in the performance of audits of internal defense operations and activities.	Number of Audits/Surveys Accomplished
C.4	Contract Auditing Activities. This area covers personnel engaged in the performance of audits of defense contracts and related activities.	Number of Audits/Surveys Accomplished
D.1	Professional Education. This area covers personnel at Service Academies (West Point, the Naval Academy, and the Air Force Academy) and other Service schools who are engaged in improving professional education for military and civilian personnel.	Average Number of Students Enrolled Student Manyears
D.2	<u>Dependent Education</u> . This area covers personnel engaged in providing education for minor dependent children of military and civilian personnel of the DoD.	Average Number of Students Enrolled Student Manyears
D.3	Military Training. This area covers personnel engaged in providing basic combat training, advanced individual training and combat support training.	Average Number of Trainees Assigned or Attached to Training Centers for Training
D.4	<u>Civilian Personnel Management</u> . This area covers personnel engaged in civilian personnel management, operations and activities.	Number of Personnel Supported
D.5	<u>Military Personnel Management</u> . This area covers personnel engaged in military personnel management, operations and activities.	Number of Personnel Supported
E.1	<u>Local Procurement Activities</u> . This area covers personnel engaged in procuring items and services at base level.	Number of Procurement Actions Number of Contracts Awarded

<u>No</u> .	Title/Scope	Suggested Indicators
E.2	<u>Central Procurement Activities</u> . This area covers personnel engaged in central procurement functions and operations.	Number of Procurement Actions Number of Contracts Awarded
E.3	<u>Contract Administration Activities</u> . This area covers personnel performing contract administration functions, such as pre-award surveys, post-award contract administration services, payment of contractors and quality assurance inspections.	Average Number of Contracts on Hand Number of Payment Vouchers Processed Number of Line Items Inspected
E.4	Base Transportation and Traffic Management Activities. This area covers personnel engaged in the movement of persons and materiel at base level.	Number of Line Items Processed Number of T/Rs Processed Number of Tons of Cargo Moved Number of Personnel Moved
E.5	Depot Transportation and Traffic Management Activities. This area covers personnel engaged in the movement of materiel at depot level.	Number of Line Items Processed Number of T/Rs Processed Number of Tons of Cargo Moved Number of Personnel Moved
E.6	Single Manager Transportation and Traffic Management Activities. This area covers personnel engaged in transportation and traffic management activities of (1) the Military Traffic Management and Terminal Service, (2) the Military Sealift Command, and (3) the Military Airlift Command.	Number of Line Items Processed Number of T/Rs Processed Number of Tons of Cargo Moved Number of Personnel Moved
E.7	Motor Vehicle Operations. This area covers personnel engaged in the operation of administrative vehicles, such as dispatchers and drivers.	Number of Passenger Miles Driven

<u>No</u> .	Title/Scope	Suggested Indicators
E.8	<u>Local Supply Activities</u> . This area covers personnel engaged in base level supply functions and activities, such as the receipt, issue, storage, inventory and stock control of equipment and supplies.	Number of Requisitions Processed Number of Line Items Processed Number of Line Items Inventoried
E.9	<u>Depot Supply Activities</u> . This area covers personnel engaged in depot level supply functions and activities, such as the receipt, issue, storage, inventory and stock control of equipment and supplies.	Number of Requisitions Processed Number of Line Items Processed Number of Line Items Inventoried
E.10	Inventory Control Activities. This area covers personnel engaged in functions and activities at inventory control points.	Number of Requisitions Processed Number of Line Items Processed Number of Line Items Inventoried
E.11	Intermediate Maintenance Activities. This area covers personnel engaged in maintenance and repair of equipment at installation level.	Number of End Items Processed
E.12	<u>Depot Maintenance Activities</u> . This area covers personnel engaged in depot level maintenance and repair of equipment.	Number of End Items Processed
E.13	Motor Vehicle Maintenance. This area covers personnel engaged in the maintenance of administrative vehicles.	Number of Vehicles Maintained
E.14	Real Property Maintenance Activities. This area covers personnel engaged in real property maintenance activities, such as maintenance and repair of buildings, procurement of utilities, refuse collection and custodial services.	Square Feet of Buildings Maintained Cubic Yards of Refuse Collected KWHs of Electricity Generated
E.15	<u>Dining Facilities</u> . This area covers personnel engaged in the operation of dining facilities at military installations.	Number of Meals Served

<u>No</u> .	Title/Scope	Suggested Indicators
E.16	<u>Commissary Operations</u> . This area covers personnel engaged in commissary operations, including retail sales and troop issues.	Dollar Value of Sales - excluding Surcharge Collections ¹ Number of Troop Issue Requisitions Processed
E.17	<u>Laundry and Drycleaning Operations</u> . This area covers personnel employed laundry and drycleaning facilities.	Number of Pieces Processed
E.18	<u>Printing Activities</u> . This area covers personnel engaged in printing, duplicating and publishing functions.	Production Units of Work
F.1	<u>Specialized Manufacturing - Maps</u> . This area covers personnel engaged in map-making and related activities.	Number of Maps Produced
F.2	<u>Specialized Manufacturing - Clothing</u> . This area covers personnel engaged in the manufacture of clothing.	Number of Items of Clothing Produced
F.3	<u>Specialized Manufacturing - Weapons</u> . This area covers personnel engaged in the production and manufacture of weapons.	Number of Weapons Produced
F.4	<u>Specialized Manufacturing - Munitions</u> . This area covers personnel engaged in the production and manufacture of ammunition.	Number of Items of Munitions Produced
G.1	<u>Personnel Security</u> . This area covers personnel engaged in personnel security checks and investigations.	Number of National Security Checks Completed Number of Background Investigations Completed
G.2	Personnel Support and Administration Activities. This area covers personnel engaged in all types of work in general personnel support and administration.	Number of Personnel Provided Service

E3.7. <u>DEFINITIONS</u>

The following definitions apply to the DoD Productivity Program. Other useful definitions are contained in the Glossary of Terms in Appendix 4, DoD Manual 5010.15.1-M (reference (e)).

¹ BLS will deflate when making productivity index computations.

- E3.7.1. <u>Organizational Element</u>. A major command or operating agency of a DoD Component, e.g., Army Materiel Command (AMC), Air Force Audit Agency.
- E3.7.2. <u>Organizational Sub-Element</u>. A subordinate command or operating agency of an organizational element, e.g., U.S. Army Missile Command.
- E3.7.3. <u>Field Element</u>. A base, installation or depot of an organizational sub-element, e.g., Letterkenney Depot.
- E3.7.4. <u>Agency Productivity Principal</u>. The primary contact between an Agency and the productivity project team (BLS, OMB, GAO, CSC and the JFMIP).
- E3.7.5. <u>DoD Productivity Principal</u>. The individual in the OASD(I&L) who is responsible for (1) providing overall technical assistance and coordinating DoD efforts on productivity enhancement, measurement and evaluation, (2) submitting DoD productivity data input to BLS and the JFMIP and (3) coordinating, within DoD, productivity requirements initiated by other Federal Agencies.
- E3.7.6. <u>DoD Component Productivity Principal</u>. The individual in a DoD Component who is responsible for (1) coordinating productivity efforts within his component and (2) the timely preparation of productivity reports and response to other productivity data requirements levied on his component.
- E3.7.7. OSD Functional Area Productivity Representatives. Individuals on the OSD staff who are responsible for productivity matters in their respective areas.
- E3.7.8. <u>Measurable Areas</u>. The functions/operations of an organizational element, organizational sub-element, or field element for which at least one final output and corresponding manyear inputs can be quantified.
- E3.7.9. <u>Non-Measurable Areas</u>. The functions/operations of an organizational element, organizational sub-element, or field element for which no final outputs and/or corresponding manyear inputs can be quantified.
- E3.7.10. <u>Outputs</u>. The final products produced or services rendered in a measurable functional area by an organizational element, organizational sub-element, or field element.
- E3.7.11. <u>Inputs</u>. The amount of resources (all types) utilized or consumed to produce an output.

- E3.7.12. <u>Labor Input</u>. The amount of labor resources utilized or consumed to produce an output.
- E3.7.13. <u>Manyear of Labor Input</u>. A manyear of labor input for this program constitutes 2,080 paid hours. (This includes regularly scheduled time, overtime, and leave time for all types of employees.)
- E3.7.14. <u>Measured Manyears</u>. The total manyears (civilian and military) expended in a measurable area by an organizational element, organizational sub-element, or field element. Measured manyears can be two types:
- E3.7.14.1. <u>Direct Manyears</u>. The manyears in a measurable area which are charged directly to the final outputs of the area.
- E3.7.14.2. <u>Indirect Manyears</u>. All other manyears in a measurable area such as those expended on clerical, typing, secretarial, supervision, executive direction, and general services.
- E3.7.15. <u>Unmeasured Manyears</u>. The total manyears (civilian and military) expended by an organizational element, organizational sub-element or field element in nonmeasurable areas (areas in which no final outputs and corresponding manyears of input can be quantified).
- E3.7.16. <u>Compensation</u>. The total wage costs incurred to produce a product or render a service. Such costs include direct payroll costs plus other direct wage costs such as the Government's contribution for retirement, social security, health insurance, and life insurance. Compensation does not include separation costs such as severance pay and terminal leave payments.
- E3.7.17. <u>Effectiveness Measurement</u>. Comparison of current performance against pre-established mission objectives (goals). If the right mission objective (goals) are established, effectiveness measurement discloses whether an activity does the right thing at the right time -- it compares what an activity or group of individuals actually accomplish in relation to an assigned mission.
- E3.7.18. Efficiency Measurement. Comparison of current performance against either a pre-established standard or actual performance of a prior period. Efficiency measurement discloses how an activity or group of individuals performs during a current period in relation to either: (1) a standard established for a job or task which they have responsibility for accomplishing; or (2) the level of performance achieved

for the job or task in a previous period. Efficiency measurement may be based upon manpower, monies or a combination of both.

E3.7.19. Types of Efficiency Measurement

- E3.7.19.1. <u>Labor Productivity Measurement</u>. Comparison of labor performance during two periods of time usually a current period and a previous period, known as a base period. It compares actual manpower expended and the resulting products produced, or services rendered, during the two periods of time and discloses the labor performance of an activity or group of individuals during the current period in relation to their performance during a previous period of time.
- E3.7.19.2. <u>Dollar Productivity Measurement</u>. Comparison of performance in terms of dollars between two periods of time, usually a current period and a previous period, known as a base period. It compares actual monies expended and the resulting products produced or services rendered during the two periods of time and discloses the performance of an activity or group of individuals during the current period in relation to a previous period based upon monies expended in each of the periods.
- E3.7.19.3. <u>Labor Standards Measurement</u>. Comparison of labor performance against pre-established standards. It compares actual manpower expended on a job or task during a given period of time with the standard established for the job or task for that period of time.
- E3.7.20. <u>Productivity Index</u>. The percentage ratio of goods produced or services rendered (outputs) to resources expended (inputs) during a current period in relation to a base period.
- E3.7.21. <u>Dollar Productivity Index</u>. The percentage ratio of goods produced or services rendered (outputs) to dollar resources expended (inputs) during a current period in relation to a base period.
- E3.7.22. <u>Labor Productivity Index</u>. The percentage ratio of goods produced or services rendered (outputs) to labor resources expended (inputs) during a current period in relation to a base period.

E4. ENCLOSURE 4

PRODUCTIVITY REPORTING

E4.1. General.

Productivity reporting to OSD is an integral element of the DoD Productivity Program. It is necessary in order to satisfy a Government-wide requirement levied on all Executive Departments and Agencies and to provide data for internal DoD management purposes. Specifically each DoD Component will submit annually to the OASD(I&L) the following attachments and data:

- E4.1.1. Attachment E4.A1. Summary of Manyears by Organizational Elements This attachment will be used to recap the manyear data for each organizational element of the reporting Component. For the "Year-end Strength" show the number of personnel authorized at end of FY. For the "Paid Civilian Manyears" show the manyear data reported on Attachment E4.A1. of the report submitted under the provisions of OMB Circular No. A-93. For the "Measured Manyears", show the total manyears measured (Paid Civilian, Military, and Indirect Hire Foreign Nationals) for each organizational element.
- E4.1.2. <u>Attachment E4.A2. Summary of Measured Manyears by Function</u> This attachment will be used to recap the measured manyears by function of the reporting Component. The manyear data for each function must agree with the data reported on Attachment E4.A3. for each function.
- E4.1.3. <u>Attachment E4.A3. Input/Output Data</u> This attachment will be used to report quantitative input/output data. A separate attachment will be prepared for each function covered by productivity measurement.
- E4.1.4. <u>Attachment E4.A4. Description of Indicators</u> This attachment will be used to describe new indicators established during a reporting period and to revise the description (as necessary) of any indicators reported in a prior period.
- E4.1.5. <u>Attachment E4.A5. Revision of Input/Output Data Submitted in Prior Years</u> This attachment will be used to report changes in input/output data which were submitted in a prior year and the reasons necessitating the change.
- E4.1.6. <u>Attachment E4.A6. Productivity Data Verification, Analysis and Outlook</u> This attachment will be used to report (1) whether the Agency

productivity listing (provided from BLS data bank) is correct, (2) whether the productivity indices are representative, and (3) the productivity outlook for the future. A separate attachment will be submitted for each function.

- E4.1.7. <u>Attachment E4.A7. Changes Required in BLS Listing</u> This attachment will be used to report changes which should be made in the BLS data bank.
- E4.1.8. <u>Attachment E4.A8. Productivity Analysis</u> This attachment will be used to explain productivity indices which are not considered representative and to describe factors which caused either an increase or decrease of more than 5 percent in productivity.

E4.2. Reporting Due Dates.

Attachment

Each DoD Component will adhere to the following due dates for submission of attachments and data:

Attacriment	<u>Due Date</u>
E4.A1. & E4.A2.	120 days after end of FY
E4.A3., E4.A4., & E4.A5.	90 days after end of FY
E4A6., E4.A7., & E4.A8.	21 days after receipt of Agency Listings

Duo Data

Attachments - 8

- 1. Attachment E4.A1. Summary of Manyears by Organizational Element
- 2. Attachment E4.A2. Summary of Measured Manyears by Function
- 3. Attachment E4.A3. FY 197_Input/Output Data
- 4. Attachment E4.A4. Description of Indicators
- 5. Attachment E4.A5. Revision to Input/Output Data Submitted in Prior Years
- 6. Attachment E4.A6. FY 197_Productivity Data Verification, Analysis, and Outlook
- 7. Attachment E4.A7. Changes Required in BLS Data Bank
- 8. Attachment E4.A8. Productivity Analysis

E4.A1. <u>ATTACHMENT 1 TO ENCLOSURE 4</u> SUMMARY OF MANYEARS BY ORGANIZATIONAL ELEMENT

				(DoD	Compo	onent)				
			Fi	iscal Y	ear					
							Measu	red Manye	ears	
Organizational					ivilian Maı			Paid		Foreign
<u>Element</u>	<u>Total</u>	<u>Civilian</u>	<u>Military</u>	<u>Total</u>	<u>Basic</u>	<u>Premium</u>	<u>Total</u>	<u>Civilian</u>	<u>Military</u>	<u>Nationals</u>
1.										
2.										
3.										
4.										
Total										

E4.A2. ATTACHMENT 2 TO ENCLOSURE 4

SUMMARY OF MEASURED MANYEARS BY FUNCTION

(DoD Component)

Fiscal Year 197__

FUNCTION		MANYEARS				
<u>No.</u> A.	Title Medical 1 - Hospitals 2 - Clinics	Total	Paid Civilian	Military	Indirect Hire Foreign Nationals	
B.	Communications 1 - Base Communications 2 - Defense Communications					
C.	Accounting, Finance, Auditing 1 - Base Acctg & Finance 2 - Central Acctg & Finance 3 - Internal Auditing 4 - Contract Auditing					
D.	Education, Training, Personnel Management 1 - Professional Education 2 - Dependent Education 3 - Military Training 4 - Civilian Personnel Mgt. 5 - Military Personnel Mgt.					
E.	Logistics 1 - Local Procurement 2 - Central Procurement 3 - Contract Administration 4 - Local Transportation 5 - Depot Transportation 6 - Single Manager Trans. 7 - Motor Vehicle Operations 8 - Local Supply 9 - Depot Supply 10 - Inventory Control 11 - Intermediate Maintenance 12 - Depot Maintenance 13 - Motor Vehicle Maintenance 14 - Real Property Maint. 15 - Dining Facilities 16 - Commissary Operations 17 - Laundry and Dry Cleaning 18 - Printing					

FUNCTION		MANYEARS				
			Paid		Indirect Hire	
<u>No.</u>	<u>Title</u>	<u>Total</u>	<u>Civilian</u>	<u>Military</u>	Foreign Nationals	
F.	Specialized Manufacturing 1 - Maps 2 - Clothing 3 - Weapons 4 - Munitions					
G.	Other 1 - Personnel Security 2 - Personnel Support & Admin.					
	TOTAL					

E4.A3. ATTACHMENT 3 TO ENCLOSURE 4

FY 197_ INPUT/OUTPUT DATA

(DoD Con	nponent)
(202 0011	ipomonic)

(Function - Number and Title)

A.	Direct Manyears Indicator	Output Quantity (000)	Manyear Inputs (000)	Compensation (000)
	1.			
	2.			
	3.			
	4.			
	5.			
	Total Direct Manyears			
B.	Indirect Manyears			
C.	Total Manyears			
D.	Breakdown of Manyears			
	Paid Civilian Manyears			
	2. Military Manyears			
	3. Indirect Hire Foreign National Manyears			
	Total Manyears			
E.	Other Data			
			<u>Yes</u>	<u>No</u>
	1. Did any significant quality or process changes occur during the year?			
	2. Which impacted on current year performance?			
	3. Did any significant product mix changes occur during the year?			
	4. Did any significant change in the ratio of workload performed inhouse to contracted out occur during the year?			

NOTE: Provide a complete explanation for each yes answer.

E4.A4. ATTACHMENT 4 TO ENCLOSURE 4 DESCRIPTION OF INDICATORS

	(DoD Component)	
	(Function - Number and Title)	
Indicator		

E4.A5. ATTACHMENT 5 TO ENCLOSURE 4

REVISION TO INPUT/OUTPUT DATA SUBMITTED IN PRIOR YEARS

(DoD Component)
(Function - Number, Title, and Output Indicator)

Fiscal Year

1972 1973 1974 1975 1976 1977

A. <u>DATA</u>

- 1. Output Quantity
 - a. Old
 - b. Revised
- 2. Manyear Input
 - a. Old
 - b. Revised
- 3. Compensation
 - a. Old
 - b. Revised
- B. Reason for change (Provide concise explanation)

E4.A6. ATTACHMENT 6 TO ENCLOSURE 4

FY 197 PRODUCTIVITY DATA VERIFICATION, ANALYSIS AND OUTLOOK

	(DoD Component)		
	(Function - Number and Title)		
		<u>Yes</u>	<u>No</u>
A.	Productivity Data Verification		
	1. Does the data shown on the Agency Productivity Listing agree with Attachment E4.A3. data as submitted? If "no" complete Attachment E4.A7.		
В.	Productivity Analysis		
	Total manyear Productivity Index		
	Current Yr. Prior Yr. Change		
	2. Is the "Current Year" index representative of the productivity trend for this function. If "no" or if the change exceeds 5 percent (either increase or decrease) complete Attachment E4.A8.		
C.	Productivity Outlook		
	Productivity goal for next year		
	 Briefly describe (a) actions underway or planned to increase productivity during the year and (b) known factors which will influence the productivity of this function during year. 		

E4.A7. ATTACHMENT 7 TO ENCLOSURE 4 CHANGES REQUIRED IN BLS DATA BANK

		(I	DoD C	Compo	onent)	-	
		(Function	on - N	lumbe	r and T	itle)	
A.	Agency listing not i	n agreen <u>Output</u>		vith At Input		ent E4. <u>Compe</u> i	A3. Revise as follows
	Indicator	From I	<u>-</u> 0	<u>From</u>	<u>To</u>	<u>From</u>	<u>To</u>
В.	Current Year Attacl						
	Indicator	Output From T		Input From	<u>То</u>	From	nsation_ To
C.	Reason for Change:	(Provi			Explan	ation)	

E4.A8. ATTACHMENT 8 TO ENCLOSURE 4 PRODUCTIVITY ANALYSIS

	(DoD Component)		
	(Function - Number and Title)		
A.	Productivity Index		
	Direct Manyear Productivity Index		
	Total Manyear Productivity Index		
B.	Productivity Analysis		
	 Are the "current year" indexes representative of the productivity trends for the function? If "no" provide concise explanation. 	(yes)	(no)